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UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

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TITLE

FOREST INSECT SURVEY - CLEVELAND NATIONAL FOREST

Season of 1940

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by
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Berkeley, California
January 10, 1941

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FOREST INSECT LABORATORY
BERKELEY, CALIFORNIA
January 10, 1941

FOREST INSECT SURVEY - CLEVELAND NATIONAL FOREST

Season of 1940

APPROVED BY:

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Associate Entomologist

FOREST INSECT SURVEY - CLEVELAND NATIONAL FOREST

Season of 1940

S. T. Carlson and D. DeLeon, with Agents Noel Street and Gilbert Acosta, started an intensive cruise of the Laguna area on October 29. It was soon found that the spotting work in this unit was complicated by a condition developing during the summer, resulting in the fading of a great many trees which were apparently dying regardless of attack by insects. After a discussion with Forest Supervisor Farrell it was decided to make a thorough coverage of the area and to make a study of the trees that were affected. Forest Guard Swenson was detailed to assist on this program and a 100 percent cruise was made of the Laguna area. Carlson returned to Berkeley on November 10, and DeLeon took over the crew and completed the survey on December 14. In addition to the spotting, this work included a study of the factors involved in the dying condition of the Jeffrey pine. A special report will be made later dealing with the problem.

Carlson and Miller made the survey of the Cuyamaca, Pine Hills and Julian units, November 3 and 4. C. E. Dunston of the Regional Office was on the Laguna area November 9, and on the 10th accompanied Miller on a reconnaissance of the Palomar Infestation Area.

CHARACTER OF THE INFESTATION

For the forest as a whole, the infestation is of the light endemic type except in the Laguna, Pine Hills and Julian Units. Ips spp. and the western pine beetle, Dendroctonus brevicomis, are epidemic in Coulter pine in certain local areas. The pine flathead, Melanophila californica, is the insect concerned in losses affecting Jeffrey pine stands.

CONDITIONS ON THE UNIT AREAS

Laguna Infeststion area

Volcan Unit: No examination made.

Julian Unit: The Ips-western pine beetle outbreak in Coulter pine reported upon last year has been increasing and spreading into new territory. This infestation apparently originated around the eastern border of the 1938 burn where it was localized in the fall of 1939. In the fall of 1940 large groups were found in the area west of Julian which had been relatively free of infestation previously. New groups were also found to be springing up in the Pine Hills unit to the north, which is also part of the spread from the original center around the burn. The estimated tree losses in the Julian Unit increased from 175 trees in 1939 to 500 in 1940. Control is recommended, but the ownership is such that it will have to be carried out by private or county agencies.

Pine Hills: This area also shows a sharp increase due to grouping attacks in Coulter pine by Ips-western pine beetle attack. This occurs almost entirely on the eastern borders of the unit. Control recommended.

Cuyamaca State Park: Infestation endemic. Estimated 1940 loss does not exceed 10 trees.

Laguna Unit: In the survey of this unit 1301 infested trees were marked. These were Jeffrey pines mostly infested by the pine flathead, but several groups of Ips killings were included. In addition, 446 "X" trees were marked which were distinctly fading but showed no evidence of attack by primary insects. Continued control work to treat and remove the infested trees was recommended on the basis that the high values in this recreational area warrant a forest sanitation program. The presence of infested and

dead trees in these intensively used areas is undesirable from the use standpoint and also carries the threat of continuing losses. A study of the underlying causes of the sudden increase during 1940 in the number of fading and infested trees was made by DeLeon and a special report on the problem will be submitted later.

Pine Valley Unit: A small center of pine flathead infestation on private lots is continuing. Some poorly timed control work by the owners was conducted last year, but some of the trees were effectively treated. The 1940 loss is estimated at 20 trees.

Corte Madera Unit: No examination made.

Palomar Infestation Area

The Dyche Valley, Mendenhall and Palomar units were covered in a reconnaissance by Miller and Dunston on November 10. There was no infestation in evidence that would warrant control or other attention. Losses were lighter even than in 1939 when conditions were endemic. In 1939 about 15 infested trees were noted in the Palomar unit, a number of which were within reach of the road approaching the observatory and because of the aesthetic value of tree cover in this area, control was recommended to the County agency. No infestation was evident here in 1940.

Lost Valley: No examination made.

SUMMARY OF UNIT LOSSES - 1940

Infestation Area	Unit	Estimated seasonal loss Number of trees.	Action Recommended
Laguna	Volcan	Not examined	--
	Julian	500	Control
	Pine Hills	200	Control
	Cuyamaca	10	None
	Laguna	1,301	Control
	Pine Valley	20	Control
	Corte Madera	Not examined	--
	Total for area	2,031	
Mt. Palomar	French Valley	Not examined	--
	Palomar	Very light-No estimate	None
	Mendenhall	Very light-No estimate	None
	Oyche	Very light-No estimate	None
	Lost Valley	Not examined	--

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FOREST INSECT LABORATORY - BERKELEY, CALIFORNIA

FOREST INSECT SURVEY

LAGUNAS INFESTATION AREA

SAN DIEGO COUNTY, CALIFORNIA

SAN BERNARDINO MERIDIAN

SCALE
in 0 ½ 1 2 3 4 Miles

N

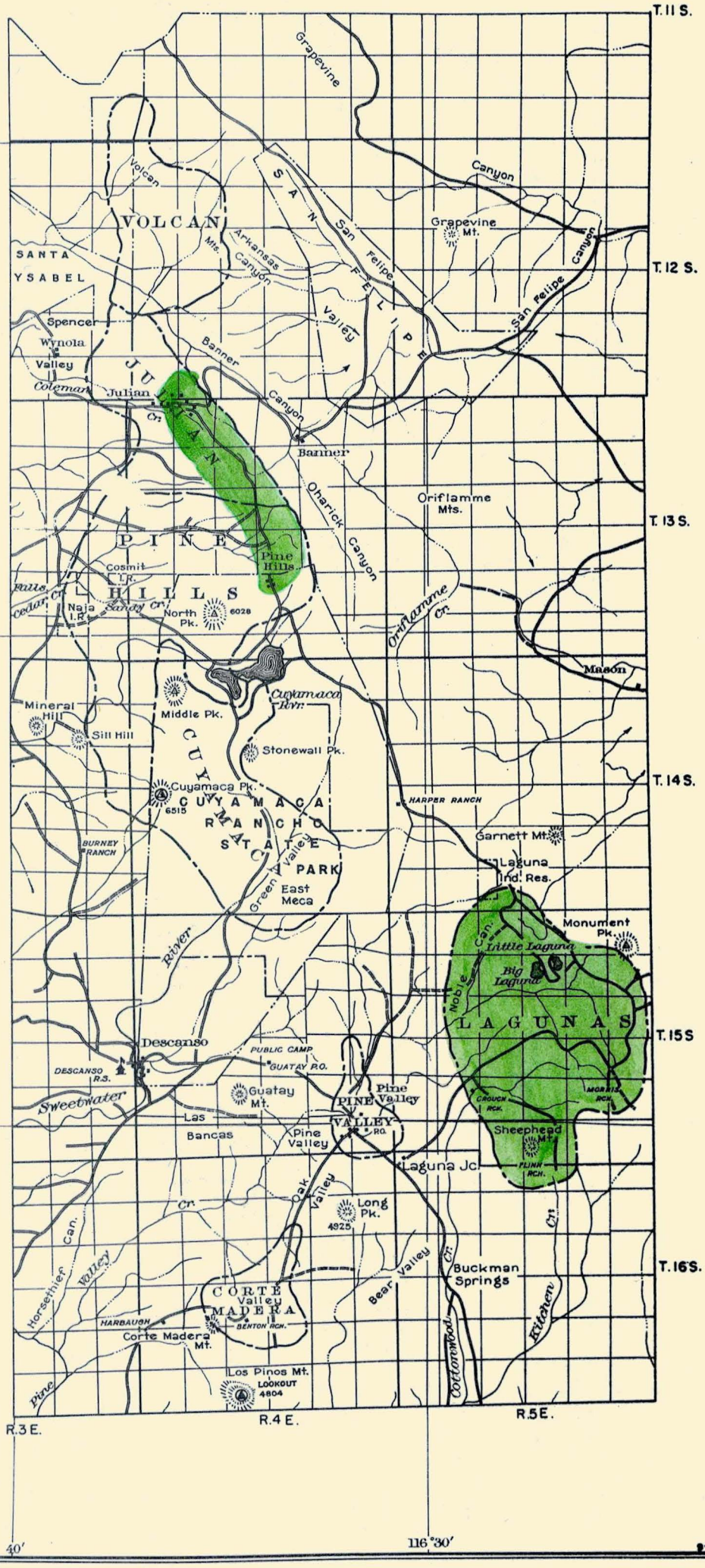
LEGEND

——— UNIT BOUNDARY

ESTIMATED UNIT LOSS - 1940

UNIT	NO. TREES
VOLCAN	0
JULIAN	500
PINE HILLS	200
CUYAMACA	10
LAGUNAS	1301
PINE VALLEY	20
CORTE MADERA	0
TOTAL	2031

AREAS RECOMMENDED FOR CONTROL - WINTER OF 1940-41



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